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ABSTRACT

Stress, burnout, combat fatigue are all common terms in recent teacher education literature. The purpose of this study was to determine if there was any significant relationship between learning style, as measured by the Gregoric Transaction Ability Inventory and stress, as measured by the Wilson Stress Profile for Teachers. Sixty-two secondary student teachers were administered the two instruments during a student teaching seminar half way through the student teaching experience. Analysis of Variance were performed on the overall stress score and nine subtest scores for each of the four learning styles. T-tests were performed on the concrete-abstract and the random-sequential continuums. Significance was found only in the subtest for Intrapersonal Conflicts with the sequential learning styles. There was some evidence, although not significant, that there might be some relationship between stress and the abstract vs. concrete learner. This might warrent further investigation. (Author/JD)

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SECONDARY STUDENT TEACHER STRESS AND LEARNING STYLE

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INTRODUCTION

Stress, burnout, and combat fatigue are all common terms in the recent vocabulary of educational professionals. This is understandable since so many professional teachers exhibit characteristics which reflect these terms. This phenomona has caused many teachers to quit the profession, or according to Bruce Joyce (1982), to become withdrawn or retrenched.

What is teacher stress and what can we do to alleviate this problem which is appearing more frequently and at an alarming rate? According to Gillet (1987), teacher stress is a reaction of anxiety to what is perceived as a threatening demand coming from the environment.

Stress and burnout have been topics of concern in many professions over the years. Business and industry have been concerned because of the staggering economic loss caused by their key professionals being disabled by stress and burnout. There are other severe consequences of extreme stress and burnout as well. Families are disrupted and broken apart. Severe health problems can arise due to tension and increased use of alcohol, drugs, and tobacco. (Schwab, Jackson, & Schuler (1986).

It is only recently that the education profession has become aware of the enormous loss of productivity and potential occurring due to stress. We believe that this is

due, in part, to the growing teacher shortage and the inability of districts to find qualified people to fill vacancies occurring at a much higher rate due to stress and burnout.

According to Kiff (1986), the causes of burnout in teachers are numerous. They include the fact that teachers are still expected to conform to a code of behavior which exceeds community standards, they are scrutinized by the public more closely than others, they are pressured by parents whose children are not doing well in school and they are actually physically threatened by some parents. Other sources of pressure which are more recent are those related to accountability and teacher testing. Teacher testing is one factor which weighs very heavy on new teachers and the beginning teacher. Every year when we ask our students what their greatest concern is as they begin student teaching most all respond with one word...discipline. This is probably the greatest cause of severe stress in student teachers and beginning teachers.

According to Schwab, Jackson & Schuler (1986), the age of the teacher is directly related to burnout and that younger teachers exhibit more symptoms of stress, emotional exhaustion and fatigue than do more experienced teachers.

Most research seems to focus on environmental causes of stress and there have been some studies to see if there are different stress levels in different groups of teachers. In

1980, Bensky et al. used a questionnaire to study the stress levels of different groups of teachers and found that special education teachers are less stressed than regular classroom teachers (Sutton & Huberty 1984). Wilson (1979) used the Wilson Stress Profile for Teachers (WSPT; Wilson, 1979) to see if there were any differences in stress levels exhibited by elementary, middle, and high school teachers. There was no significant difference in the stress levels they exhibited.

This study focused primarily on high school student teachers and was designed to determine if there was any relationship between an individual student teacher's preferred learning style and the amount of exhibited total stress. In addition, we were interested in seeing if there was any specific area of stress which related to an individual's preferred learning style.

For our purpose, learning style can be defined as distinctive behaviors which serve as indicators of how a person learns from and adapts to his/her environment. (Gregorc, 1979).

METHODOLOGY

Subjects. Sixty two student teachers from across the state of Montana participated in the study. All of these students were teaching at the 7-12 grade levels and in a variety of subject areas. Their teaching sites varied and

included both rural and urban sites. The average age of these students could be considered non-traditional, that is above the traditional age for student teachers of approximately twenty one years old. The average age for these students was approximately twenty seven years old.

Instruments. The Wilson Stress Profile for Teachers is a 36-item self report questionnaire. There are nine subtests which, when completed, give a composite stress score. These nine subtest categories include: Student Behavior, Employee/Administrator Relations, Teacher/Teacher Relations, Parent/Teacher Relations, Time Management, Intrapersonal Conflicts, Physical Symptoms of Stress, Psychological/Emotional Symptoms of Stress, and Stress Management Techniques. When completing the instrument, subjects are asked to rate each of four statements within a subtest on a scale of one to five with the lower numbers indicating lower levels of stress and higher numbers indicating higher levels of stress. There are nine subtests of four statements each for a total of 36 statements. Therefore, the lowest posible score is 36 and the highest possible score is 180. Total scores in the range of 36-72 are considered to be "low stress," scores of 73-108 are considered to be "moderate stress," and scores from 109-180 are considered to be "high stress."

The Gregorc Transaction Ability Inventory (TAI) is an instrument developed by Anthony Gregorc (1979) of the University of Connecticut. It diagnoses learning style as related to individual means of transacting with the environment in the process of acquisition of information. The TAI is based on the use of abstract or concrete reference points for thinking and sequential or random preference for ordering. Therefore there are four learning styles possible, with individuals being able to function in one or all of them. These are Concrete Sequential (CS), Abstract Random (AR), Abstract Sequential (AS), and Concrete Random (CR). The instrument consists of forty words arranged in ten rows of four columns each. Subjects are asked to rate themselves on how these words relate to the way they process information. It is a forced choice instrument; a subject gives a score of four to a word which best describes his/her information processing, then a three, a two, and a one to the word which is least like him/her. Therefore, in each column, a high score would be forty and a low score would be ten. A score of fifteen or less indicates a strong aversion to that particular style while a score of thirty or above indicates a strong preference for that particular style. Scores in between indicate that the subject processes in that style but has neither an aversion or preference for it.

Procedure. Student teachers, returning for a two day seminar halfway through student teaching, were administered both the WSPT and the GTAI. Student teachers were then placed in one of three categories of stress (high, medium, or low) and placed in one of four learning styles (concrete sequential, abstract random, abstract sequential, or concrete random). It was much more difficult to place student teachers in one learning stlye because some of them were very close and exhibited no strong or weak preference. We placed them in their strongest area. Data were tested by Analysis of Variance for any relationships among the learning styles and stress levels. ANOVA was also used to see if there was any relationship between learning styles and individual areas of stress as measured by the WSPT. T-tests were used to see if there was any relationship between stress level and the the abstract-concrete continuum and the random-sequential continuum.

DATA ANALYSIS

Table 1 contains the average and standard deviation on stress scores for all nine subtests and total stress scores, broken down by learning style. An analysis of variance was performed on the overall stress score and no significance was found for the four learning styles. From table 1, it can be seen that the highest average stress scores were for the two concrete learning styles. With the breakdown by

categories, the areas of highest and lowest stress for student teachers may be identified.

An analysis of variance was performed on each of the nine stress subtests. The only significance that was found was in the category of intrapersonal relations. The results of this ANOVA are displayed in table 2. The only means within the intrapersonal relations category which were significantly different were those for the concrete sequential and the abstract sequential student teachers.

T-tests were performed to determine whether there was a significant difference in mean stress scores for the concrete - abstract continuum and the sequential - random continuum. There was no difference on stress scores for the sequential - random continuum. The average stress scores for the concrete - abstract continuum was almost significant at the .05 level. This may warrent further investigation.

Overall, there seems to be little relationship between learning style and the amount of stress exhibited by secondary student teachers. This is possibly due to the fact that most students are capable of operating in more than one learning style. Future research in this area should concentrate on the relationship of the two continuums and stress. Another possible project might involve the use of another learning style instrument. Research needs to be done with populations of student teachers who are at different grade levels.

Finally, while this project did not find a great deal of significance, it did show that, as a group, secondary student teachers exhibit a moderate amount of stress. Development of stress management techniques for student teachers should become part of the program in teacher preparation. In this period of teacher shortage, we cannot afford to lose qualified teachers to stress and burnout.

Table 1

Subtest mean and standard deviation on the Wilson Stress Profile for Teachers for four learning styles

	CS (N=37)		AS (N=2)		CR (N=8)		AR (N=15)	
	mean	s.d.	mean	s.d.	mean	s.d.	mean	s.d.
Student Behavior	10.5	1.35	10.0	0.00	10.6	2.07	9.4	1.59
Employee/Administrator Relations	6.5	2.70	8.0	0.00	8.1	2.64	6.5	2.03
Teacher/Teacher Relations	7.1	2.25	6.5	2.12	7.4	2.00	6.4	2.50
Parent/Teacher Relations	11.1	2.56	10.5	.71	12.4	3.11	12.2	1.42
Time Management	11.9	3.36	9.5	.71	12.3	3.20	11.2	2.08
Intrapersonal Conflicts	12.0	2.30	8.0	1.41	10.8	1.91	10.9	2.03
Physical Symptons of Stress	11.5	3.11	9.5	.71	10.3	1.67	10.3	1.53
Psychological/Emotional Symptons of Stress	9.9	3.09	8.5	.71	10.4	2.33	9.0	2.36
Stress Management Techniques	9.4	3.06	7.5	2.12	9.5	2.83	8.7	2.58
Total Stress	90.3	16.00	78.5	3.54	91.9	17.03	84.4	11.23

Table 2

ANOVA for Intrapersonal Conflicts

Source	df	SS	MS	F	
Group	3	45.15	15.05	3.16	(p<.05)
Error	58	276.21	4.76		
Total	61				

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